

DESCRIPTION OF A NEW *HOMOPORUS* THOMSON
(HYMENOPTERA: PTEROMALIDAE) FROM NORTH-EASTERN INDIA,
WITH A KEY TO ORIENTAL SPECIES

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Homoporus neodestructor sp. nov. is described from material collected from Meghalaya. A key to Oriental species of *Homoporus* is provided.

Key words: New species, *Homoporus*, Pteromalidae, Key, India

INTRODUCTION

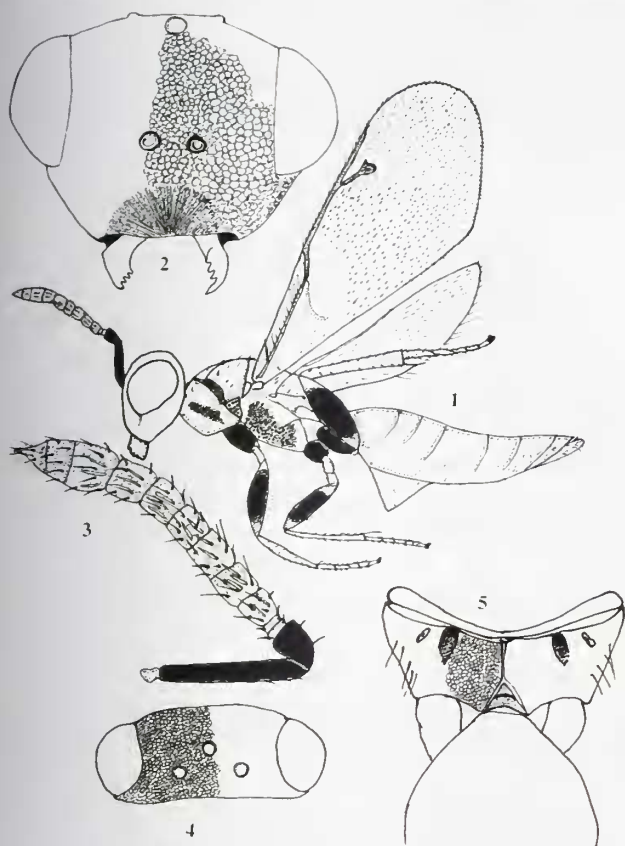
Thomson (1878) erected the genus *Homoporus* based on the type species *Pteromalus fulviventris* Walker (Graham 1969). The species of *Homoporus* are distributed in the Oriental, Australian, Afrotropical, Palearctic, Nearctic and Neotropical regions (Graham 1969; Bouček 1988; Xiao *et al.* 2004; Sureshan and Narendran 2000, 2001; Noyes 2003). Noyes (2003) listed 63 known species in the world and Narendran and Kumar (2009) added another species from India. In this paper, one more species new to science is described from India. In the Oriental region eight species are known among which four are from India (including the new species described here under). The holotype and paratype of the new species described in this paper are retained in the Department of Zoology, University of Calicut (DZCU), but eventually will be deposited respectively in the National Pusa Collection of Division of Entomology, Indian Agricultural Research Institute, New Delhi, India, (NPC) and the Insect Collections, Department of Zoology, Aligarh Muslim University, Aligarh (ZDAMU).

Abbreviations used: F1 to F6= Funicular segments 1 to 6; MV= Marginal vein; OOL= Ocellular line; PMV= Postmarginal vein; POL= Postocellar line; SMV= Submarginal vein; STV= Stigmal vein; T1= Gasteral tergite 1.

KEY TO SPECIES OF *HOMOPORUS* OF ORIENTAL REGION

1. First anellus longer than broad 2
- First anellus broader than long or not longer than broad.. 3
2. Lower clypeal margin distinctly notched in the middle; F3 to F6 quadrate; POL 1.6x OOL; MV 1.6x STV; forewing with brown infuscation near STV
..... **H. japonicus* Ashmead
- Anterior lower clypeal margin broadly truncate, without sharp tooth; each funicular segment longer than broad; POL 1-1.11x OOL; MV 2.3x STV; forewing without

- infuscation; gaster brown, slightly yellow centrally
..... **H. sinensis* Xiao *et al.*
3. Both mandibles quadridentate 4
- At least one mandible tridentate 8
4. Gaster black with green or blue refringence or gaster black with reddish or rusty colour at base 5
- Gaster yellow (sometimes with brown areas on sides) 7
5. Gaster at least 2x as long as broad; F6 as long as wide; MV 2x or a little more than 2x-STV; pronotum in front of collar not descending vertically with respect to plane of mesoscutum; pronotal neck at least partly visible in dorsal view 6
- Gaster shorter than 1.8x its width; F6 1.5x longer than wide; MV shorter than 2x STV; pronotum in front of collar descending vertically with respect to plane of mesoscutum; pronotal neck not visible in dorsal view (pronotal collar not margined) ** destructor* (Say) (Extralimital)
6. Pronotal collar not margined; scape 3x as long as pedicel; F1 shorter than pedicel, as long as its width; clava (excluding spicule) 2.5x as long as F6 *neodestructor* sp. nov.
- Pronotal collar margined medially; scape longer than 4-5x as long as pedicel; F1 as long as pedicel, distinctly longer than wide (5:3); clava 2x as long as F6
..... **subniger* Walker (in part)
7. Fifth tarsal segment especially of mid and hind legs swollen; scape reaching beyond level of vertex; funicular segments distinctly longer than wide; MV 3x STV
..... *maharashtriensis* Narendran & Kumar
- Fifth tarsal segment not swollen; scape not reaching anterior ocellus, hence not at all reaching level of vertex; funicular segments gradually widening towards tip; MV 2.1x as long as STV *acuminatus* Sureshan & Narendran
8. Gaster pale brownish-yellow with 2 dark lines dorso-laterally on either side, tips also dark brown; legs with last tarsal segments swollen (prominent on mid and hind legs); clypeus anteriorly with deep notch in middle; scape reaching beyond



Figs 1-5: *Homoporus neodestructor* sp. nov. Female: 1. Body profile; 2. Head anterior view; 3. Antenna; 4. Head dorsal view; 5. Propodeum

anterior ocellus *gladius* Sureshan & Narendran

— Gaster black with metallic green or blue refringence; other characters partly or completely different 9

9. Pronotum highly inclined vertically in front of collar; pronotal collar not margined; forewing with more or less a dark spot below base of MV **luniger* (Nees)

— Pronotum not declining vertically; collar margined; forewing without dark spot or infuscation (in part) **subniger* (Walker)

* Names with an asterisk indicate no material of the species was examined and the differential features provided are taken from previous descriptions.

***Homoporus neodestructor* sp. nov.** (Figs 1-5)

Holotype: Female: Length 3 mm. Dark metallic green except the following: antenna pale yellow with pedicel and scape black with slight metallic green refringence; mandibles brown; eye brown, with anterior marginal area pale; ocelli pale reflecting yellow; tegulae pale yellow; all coxae concolorous with mesosoma; femora black with bases and

apices pale yellow; trochanters, tibiae and tarsi pale yellow; pretarsi black; wings hyaline, veins pale brownish yellow.

Head: engraved-reticulate with sparse short white pubescence; clypeus finely striate- reticulate; striae not reaching gena; anterior margin of clypeus straight; head width in dorsal view 1.21x width of mesoscutum, 2.73x its length; width in front view 1.5x its height; vertex raised reticulate; temple length shorter than half length of eye; POL 1.6x OOL; malar sulcus faintly indicated, distance between eye and base of mandible 0.4x eye height in profile; eye separated by 1.6x eye height in front view; in dorsal view eye separated by a distance 3x POL; both mandibles with 4 teeth each. Antennae inserted below middle of face, a little above level of ventral margin of eyes; scape not quite reaching anterior ocellus; length 0.74x eye height in profile; pedicel plus flagellum 0.7x head width; funicular segments gradually widening towards tip; tip acuminate with a sharp terminal stylus or specula; relative L: W of antennal segments: scape= 45: 6; pedicel= 15: 10; F1= 10: 10; F2= 11: 11; F3= 12: 11; F4= 11: 11; F5= 11: 11; F6= 12: 12; clava= 32: 15.

Mesosoma: slightly arched in profile, with very sparse white pubescence; pronotum with raised reticulation, not margined not descending vertically in front of collar with respect to the plane of mesoscutum; pronotal neck visible; lateral panel of pronotum sunken; mesoscutum raised reticulate, 2.17x as wide as long; scutellum medially 1.1x as long as mesoscutum, similar sculptured as mesoscutum. Propodeum medially 0.4x as long as scutellum, raised reticulate, with two deep fovea with a pit on either side; nucha relatively small, a little raised and transverse between fork of median carina; spiracle elongately oval; callus with thin long pubescence, not dense; mesepisternum and lower mesepimeron densely reticulate; upper mesepimeron smooth and shiny; prepectus and lateral panel of pronotum densely reticulate. Forewing 2.5x as long as broad, with basal part almost bare; parastigmal vein indicated; CC with a row of ventral setae; upper side of CC without pubescence; speculum open behind (with 1 or 2 setae almost behind); relative length of SMV= 35; MV= 25; PMV= 20; STV= 12.

Metasoma: Ovate, mostly smooth, dorsally collapsing; gaster sessile, 1.5x length of mesosoma, a little longer than head plus mesosoma combined; hind margin of T1 straight not medially produced).

Male: Unknown.

Host: Unknown.

Variation: Length varies from 2.53-3.0 mm; black colour of femora reduced in paratype and body colour more bluish than greenish in paratype.

Material Examined: Holotype: Female, INDIA: Meghalaya, Shillong, Ladmawphlong 23.x.2008, F.R. Khan

(DZCU). Paratype: Female, Meghalaya, Jowai, Thaldskin, 22.x.2008, F.R. Khan (DZCU).

Etymology: The species is named after *Homoporus destructor* (Say) with which it resembles.

Remarks: This new species comes near *Homoporus destructor* (Say) (Say 1817) in general appearance but differs from it in having: 1) Gaster 2.2x as long as broad (in *H. destructor* 1.4- 1.6x as long as broad); 2) F6 as long as wide (in *H. destructor* F6 almost 1.5x longer than wide according to Dzhankmen, 1987); 3) MV 2x or a little more than 2x STV (in *H. destructor* MV distinctly shorter than 2x STV) and 4) Pronotum in front of collar not descending vertically (in *H. destructor* pronotum in front of collar descending vertically).

This new species also resembles *Homoporus subniger* (Walker) (Walker 1835) very closely but differs from it in

having: 1) scape 3x as long as pedicel (scape longer than 4-5x length of pedicel); 2) F1 shorter than pedicel (in *H. subniger* F1 as long as pedicel), 3) clava 2.5x as long as F6 (in *H. subniger* clava 2x as long as F6) and 4) Pronotal collar not margined (in *H. subniger* pronotal collar margined medially).

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